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THE OHIO STATE UNIVERSITY

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COLLEGE OF COMMERCE AND ADMINISTRATION
W. C. Weidler, Dean

BUREAU OF BUSINESS RESEARCH STAFF

Spurgeon Bell, Director

Viva B. Boothe
Howard G. Brunsman
L. H. Grinstead
W. D. Hooper
H. W. Widener
Willis Wissler

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THE BUSINESS AND INDUSTRIAL OUTLOOK

On the whole, the general trend of business throughout June continued downward, and the reports to date in July suggest somewhat further recessions during the summer months. Plentiful supplies of money and credit at record low rates of interest are still available, and inasmuch as the absence of these two factors would be a serious impediment to a revival, their availability may be considered favorable. However, since these two factors have been increasingly available throughout the entire period of the present depression, and since many plants in the basic industries are operating now at only 60 per cent of capacity or less, and more capital is available than can be employed at any price because business is in reduced volume, it would not seem that these factors alone are likely to be of positive significance in initiating an upward movement in business in the near future. As was pointed out in this article last month, business in this country is by no means in "desperate straits" as yet, although there is a marked recession from the high levels of 1929, and the end is not yet in sight. The records for the first half of 1930 in many of the basic industries compare favorably with the 1927-28 records which were proclaimed as satisfactory until the enthusiasm for larger profits through greater output engendered by the success of those years forced the unprecedented expansion of 1929. The genesis of this apparently unwarranted expansion, in view of the devastating consequences, might profitably absorb more of the attention of economists and business men.

It is fairly evident by this time that more was produced during 1929 than could be sold with "satisfactory" profit to the producer; not more than could be used by the people of the United States, but more than could be marketed with the present distribution of money income. The difficulty seems to lurk unmistakably in the failure of the market demand for commodities, and the continued marked decline in the index of commodity prices in June does not indicate any appreciable adjustment as yet between the supply of goods and the demand for them. This is all the more significant in view of the fact that production schedules have been progressively reduced for the past six months in all the basic industries, while inventories have been steadily declining as has also the imports of merchandise from abroad. On the demand side, the increasing volume of unemployment following the cost-cutting adjustments of individual firms, further reduces an already depleted domestic market demand.

The fact that the present depression in the United States is paralleled by a similar situation in all of the principal countries with whom there is an extensive trade, does not offer much immediate hope that the "failure-of-market" problem can be solved on any large scale for any large number of industries by looking elsewhere for a market. This is all the more apparent when it is recalled that the price decline of the past eighteen months is an international phenomena which greatly reduces the chances for an acceleration of European demand for American commodities to take advantage of the prevailing low prices. In fact, the loss of this differential advantage is without doubt an important factor in the 18 per cent decline in the merchandise exports of the United States for the first five months of 1930 as compared with the corresponding period of 1929.

The iron and steel industry showed continued recession in June, and the rate of operation for the country as a whole the first week in June, as reported by the *Iron Age*, was only 60 per cent of capacity. The most encouraging news offered by the reports for the second week in June was that the drop to 56 per cent of capacity for the United States as a whole was less than had been anticipated. The May-to-June decline in the average daily production of pig iron in Ohio and in the United States was substantially greater than the average May-to-June decline for the past five-year period, as was also the decline in the average daily production of steel in the United States. Average prices of iron and steel in June showed further declines from the low level of April and May when the composite iron and steel price index showed prices to be at a level lower than at any time since 1922. The decline in steel taking by the railroads, and the announced reductions in automobile production schedules do not point to increased activity in the iron and steel industry during the summer months.

The decline in the volume of business as compared with last year is reflected in the continued decline in the volume of freight car loadings in June. The recent report of the Bureau of Railroad Economics at Washington, on net operating income for Class I of the railroads for the first five months of 1930 as compared with the first five months of 1929, shows a decrease of 32.68 per cent in net operating revenue, lowering the rate of return on property from 5.79 per cent to 3.78 per cent. Gross operating revenue decreased 10.7 per cent while operating expense declined only 6.9 per cent.

In spite of the fact that the June construction contract total was the largest recorded for any month during the past two years with the exception of April and July, 1929, and that public works and utilities contracts for the first six months of 1930 were 241 million dollars greater than for the same period of last year, the value of total construction for the first six months of 1930 was 377 million dollars less than for the same period of last year—a decline of 13 per cent. Although there was an increase of 2 points in the demand ratio for residential building in June, the *Graphic Review* points out that, "Even if the current rate of contract-letting for public works and utilities were to be continued throughout the second half of the year, more substantial improvement in residential building than has yet appeared will be necessary to show a total construction volume for the year 1930 anywhere approaching the 1929 total." It should be recalled in this connection that the construction industry was already in a depressed condition throughout most of the year 1929. The bulk of the June increase came from the public works and utilities group, which increase was the result of an unusually large individual contract, namely, the awarding of a contract for natural gas pipe lines amounting to about a million dollars. Excluding this single contract the June figures for public works and utilities would show only a slight increase over the seasonally adjusted daily average for May. The increase in industrial construction

was due to the letting of contracts for two large power plants, but for which the average for industrial building for June would have shown a substantial decline from May.

In the automobile industry, recession was the definite program in June, and with the Ford company suspending operations from July 11 to July 28, and other producers likewise cutting production schedules, it does not seem likely that any appreciable revival in the automobile industry is to be anticipated during the summer months.

The decline in commodity prices was accelerated in June, and on July 8, the wholesale price index showed a decline of 5.3 per cent from June 10, and of 24.5 per cent from the same date of last year. The decline in prices in June from May was experienced by all groups of commodities except the building materials group which showed no further decline from May, and all groups without exception participated in the decline from the same period of last year. As mentioned earlier, the continued decline in prices in spite of reduced production schedules further demonstrates the extent to which earlier production schedules were out of line with effective demand, and probably reflects the influence of increasing unemployment here and abroad as a market factor.

The volume of department store sales in the United States in June was 9 per cent less than in June of last year, and the volume for the first half of 1930 was 4 per cent behind the first half of 1929. In the Cleveland district, department store sales in June declined 13 per cent from June of last year and for the first half of this year were 7 per cent less than for the corresponding period of last year. The gross cash agricultural income from six important sources in Ohio was 18 per cent less than in June of last year, and for the first half of 1930 was 10 per cent less than for the first half of 1929.

The decline in employment in Ohio was accelerated in June, when the index of total industrial employment dropped 3 per cent from the preceding month in contrast with the previous monthly declines of 1 per cent or less. The June decline carried the index of industrial employment in Ohio to a point lower than has been reached in any month since April, 1925, and to a point lower than in any other June since June, 1924. The 3 per cent decline in June from May is in sharp contrast to an average May-to-June increase of 1 per cent for the past five-year period. The total volume of employment in Ohio in June was 16 per cent less than in June of last year, and the volume for the first half of 1930 was 13 per cent less than for the same period of last year.

Easy money in plentiful quantity continues to be a favorable factor in the business world. There was a further decline in all rates in June from May, when the seasonally adjusted average daily rate on call loans reached the lowest point since November, 1924, the average rate on 60-90 day time money, the lowest rate since October, 1924, and the rate on bankers' acceptances, the lowest point in the post-war period, with the single exception of the average rate in July, 1924.

The shrinkage in brokers' loans during May and June testifies in dramatic fashion to the liquidation which has been in progress on the stock exchange for the past two months. The stock exchange report for June shows a contraction of $1,020,120,000, following a contraction of $315,000,000 in May, making a total decline for the two months of $1,335,000,000, a decline in volume surpassed only once when in October and November the total of brokers' loans declined 2½ billion dollars. The Federal Reserve statement of brokers' loans, a less inclusive statement than that of the Stock Exchange, showed a decline of 882 million dollars in brokers' loans in June, reducing the grand total of such loans to $3,219,000,000 on July 2, as compared with $5,769,000,000 on July 3 of last year—a reduction for the twelve months of 2½ billion dollars. The first week in July saw a further decline of $16,000,000 in brokers' loans; the second week, an increase of $40,000,000.

The decline in member bank borrowing from Federal Reserve banks in June from May was only slightly more than the average May-to-June decline for the past five-year period. The easy money policy of the Federal Reserve banks was continued in June, as indicated by the increase in the holdings of United States Government securities, although there was a slight reduction in the holdings of bills bought in the open market. On July 9, the Government holdings of Federal Reserve banks were 334 per cent greater than on the same date a year ago, while the amount of bills bought in the open market showed an increase of 126 per cent.

The stock market suffered the most drastic decline in June that has occurred since the historic decline of November. During the period from June 2 to June 24, the Standard Statistics index of 90 stocks combined declined 39.8 points, the index of 50 industrials, 39.4 points, of 20 railroads, 14.5 points, and of 20 public utilities, 65.1 points. The June decline was the most severe decline that has ever occurred in a period of easy money. In fact, in previous periods of decline, low money rates have usually been the unfailing index of increased buying. The significance of the upturn in the market since the beginning of the second week in July in relation to the market trend in the immediate future is highly questionable, in view of the very light volume of trading and the unpromising nature of the immediate business and industrial outlook. In spite of the drastic June decline, prices of leading industrials are still high, and the general industrial averages are still at the level of 1928 and early 1929. The market is not yet thoroughly deflated and any appreciable advance in prices would again get the market to levels difficult to justify even on the basis of 1929 earnings. However, in view of the money situation and the technical position of the market at present, it is quite possible that the business situation will again not dominate the immediate outlook for the market, although it is equally probable that a sustained upward trend is not likely to be established until prices have reached still lower levels.

VIVA BOOTHE, *Assistant Editor.*

BUSINESS CONDITIONS IN OHIO

Employment in Ohio

The decline of 3 per cent in total industrial employment in Ohio in June from May is in sharp contrast to a five-year average May-to-June increase of one per cent. Total industrial employment in Ohio in June was 16 per cent less than in June, 1929, and the total volume of employment for the first six months of 1930 was 13 per cent less than for the corresponding period of last year. Total manufacturing employment in the State declined 3 per cent in June from May, 18 per cent from June, 1929, and 15 per cent for the first six months of 1930, as compared with the same period of last year. Although there was no further decline in non-manufacturing employment in the State in June from May, there was a decline of 8 per

cent from June of last year, and of 4 per cent for the first six months of this year, as compared with the same period of last year. The decline of 3 per cent in manufacturing employment in the State in June from May is in contrast to a relatively stable condition of employment for this period as indicated by the average change for the past five years, while the lack of change in employment in non-manufacturing is in contrast to a five-year average increase of 2 per cent from May to June. The increase of 1 per cent in construction employment in June was considerably less than the five-year average increase from May to June. Construction employment in June was 17 per cent less than in June, 1929, and for the first six months of 1930 was 7 per cent less than for the same period of last year. The decline in all types of employment in Ohio in June from May represents more than a seasonal decline, in view of the fact that during the past five years total industrial employment, construction employment, and non-manufacturing employment have usually shown an increase in June from May, and manufacturing employment has shown no tendency to decline.

TABLE I

EMPLOYMENT IN OHIO INDUSTRIES—JUNE, 1930

Average Month 1926 = 100

Industry	Index June 1930	Ch'ge June 1930 from May 1930	Aver. Change June from May 1925-29	Change June 1930 from June 1929	Average Jan-June 1930 Change from 1929
		%	%	%	%
Total Manufacturing (641)*	91	— 3	0	—18	—15
CHEMICALS (24)	82	— 2	0	—15	—13
FOOD PRODUCTS (51)	122	+ 1	+ 7	— 6	0
Bakery (16)	119	— 1	+ 3	— 3	+ 3
Miscellaneous (35)	118	+ 2	+ 8	— 8	— 2
LUMBER PRODUCTS (25)	89	— 2	+ 2	— 8	— 5
Furniture (11)	76	+ 1	+ 1	—13	—13
Miscellaneous (14)	101	— 4	+ 3	— 4	0
MACHINERY (108)	99	— 3	0	—14	—10
Electrical Machinery, Apparatus and Supplies (22)	121	— 3	+ 2	—12	— 6
Machine Tools (19)	92	— 1	— 1	—26	—24
Material Handling and Power Machinery (20)	84	— 6	+ 1	—13	—10
Special Purpose Machinery and Appliances (47)	94	— 2	0	—10	— 7
METAL PRODUCTS (161)	85	— 5	0	—19	—13
Foundry Products and Drop Forgings (44)	91	— 3	— 1	—25	—19
Pipes, Pumps, Valves, Plumbers' Supplies (20)	78	— 2	— 1	— 6	— 6
Screw Machine Products and Hardware (22)	96	— 2	0	—22	—20
Sheet Metal Work (25)	90	— 4	+ 1	—15	—10
Steel Works and Rolling Mills (15)	83	— 7	— 1	—20	—13
Stoves and Furnaces (7)	85	— 3	— 1	—17	—11
Miscellaneous (28)	92	— 2	+ 1	—11	— 7
PAPER AND PRINTING (48)	105	— 2	0	— 1	+ 3
Paper, Inc. Stationery (11)	116	— 4	+ 1	0	+ 7
Printing & Publishing (25)	105	0	— 1	— 2	+ 1
Miscellaneous (7)	95	— 2	+ 1	0	+ 1
RUBBER PRODUCTS (25)	90	— 1	+ 1	—23	—20
Tires and Tubes (15)	89	— 1	+ 1	—23	—20
Miscellaneous (10)	95	— 1	+ 5	—26	—25
STONE, CLAY, AND GLASS PRODUCTS (62)	87	0	0	—14	—13
Brick and Tile (24)	82	— 1	+ 2	—24	—21
Glass (9)	105	+ 5	+ 1	— 9	— 7
Vitreous and Semi-Vitreous China and Pottery (15)	67	— 7	— 3	—21	—14
Miscellaneous (14)	85	+ 2	+ 2	— 9	—15
TEXTILES (43)	100	+ 2	0	—10	— 7
Men's Clothing (17)	105	+ 3	0	— 5	— 1
Miscellaneous (26)	96	+ 1	0	—13	—11
VEHICLES (62)	93	— 6	— 4	—29	—32
Autos and Parts (49)	94	— 7	— 4	—33	—35
Cars, Steam, and Street Railway (6)	85	+ 6	— 8	+17	+28
Miscellaneous (7)	85	— 3	+ 5	— 4	+ 7
MISCELLANEOUS MANUFACTURING (37)	92	— 1	+ 2	—11	— 6
Non-Manufacturing (70)	104	0	+ 2	— 8	— 4
SERVICE (13)	117	— 3	+ 2	— 1	+ 2
TRADE (RET. & WH.) (36)	99	— 1	+ 1	— 5	— 4
TRANSPORTATION AND PUBLIC UTILITIES (21)	113	+ 1	+ 2	— 5	0
Construction (205)	91	+ 1	+ 8	—17	— 7
BRICK, STONE, AND CEMENT WORK (14)	66	—21	+10	—32	—10
GEN. CONTRACTING (127)	100	— 4	+ 8	—21	— 6
PLUMB. & STEAM FIT. (13)	105	+ 1	+ 4	— 7	— 6
STREET, ROAD, AND SEWER WORK (27)	99	+16	+18	+19	+18
MISCELLANEOUS (24)	91	+17	+ 4	—19	—17
All Industries (916)	94	— 3	+ 1	—16	—13

* Figures in parentheses indicate number of reporting firms.

The decline in total industrial employment in June from May was caused primarily by further declines in the chemicals, lumber products, machinery, metal products, paper and printing, rubber products, vehicles, and miscellaneous manufacturing groups. The stone, clay, and glass products group showed no change in employment in June from May, and the food products and textiles products groups showed slight increases. As compared with June, 1929, there was a substantial employment decline in all the groups of industries except in the paper and printing group (Table I). The decline in employment in June, as compared with June of 1929, amounted to 3 per cent in the paper and printing group, 5 per cent in the lumber products group, 6 per cent in the miscellaneous manufacturing group, 7 per cent in the textiles group, 10 per cent in the machinery group, 13 per cent in the food products, metal products, and stone, clay and glass products groups, 20 per cent in the rubber products group, and 32 per cent in the vehicles group.

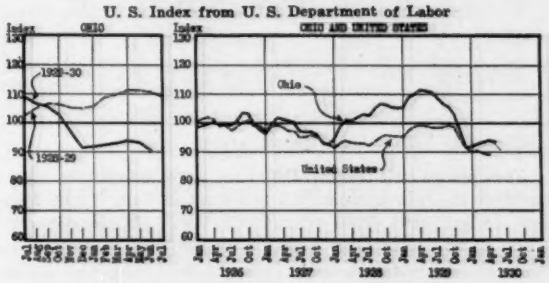
Chart I shows that since September, 1929, the volume of manufacturing employment in Ohio has been less each month than for the corresponding month of last year.

CHART I

MANUFACTURING EMPLOYMENT

Average Month 1926 Equals 100

U. S. Index from U. S. Department of Labor



Ohio Bank Debits

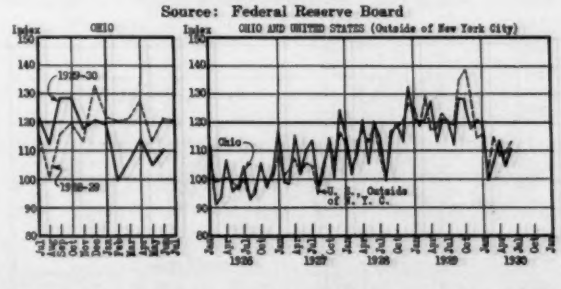
Bank debits in Ohio increased 5 per cent in June from May, and declined 9 per cent from June, 1929. The May-to-June increase in bank debits was less than the average May-to-June increase for the past five-year period (Table VIII). Chart II shows the trend in bank debits in Ohio

CHART II

BANK DEBITS

Average Month 1926 Equals 100

Source: Federal Reserve Board



and in the United States for the period 1926 to date, and the trend in bank debits in Ohio in 1929-30 as compared with 1928-29.

Ohio Construction Contracts Awarded

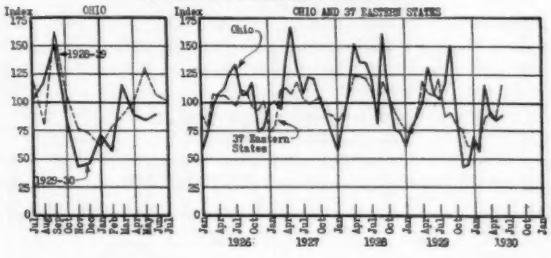
There was an increase of 5 per cent in the value of construction contracts awarded in Ohio in June from May but a decline of 16 per cent from June, 1929. The increase in the value of construction contracts awarded in the State in June from May was in contrast to an average May-to-June decline in contracts for the past five-year period (Table VIII). The 1 per cent increase in construction employment in Ohio in June from May, however, compares poorly with the five-year average increase of 8 per cent from May to June, and it is significant that the total volume of construction employment in June was 17 per cent less than in June, 1929. Chart III shows that the May-to-June increase in construction contracts awarded in Ohio was considerably less than the increase in the United States as a whole.

CHART III

CONSTRUCTION CONTRACTS AWARDED

Based on Average Daily Value, 1926 Equals 100

Source: F. W. Dodge Corporation



Automobile Bill-of-Sale Registrations

The bill-of-sale registrations of new passenger automobiles in Ohio declined 26 per cent in June from May, and 44 per cent from June, 1929. Bill-of-sale registrations of trucks in Ohio declined 29 per cent in June from May, and 38 per cent from June, 1929 (Table II). In the eight chief counties of Ohio, bill-of-sale registrations of new passenger automobiles were 25 per cent less in June than in May, and 40 per cent less than in June, 1929, while the total registrations for the first half of 1930 were 35 per cent less than for the first half of 1929. The bill-of-sale registrations of Ford Motors continued to outnumber the bill-of-sale registrations of General Motors in the eight chief counties of the State in June. It is significant to note that the decline in the registrations of Ford Motors in these same counties from June of last year amounted to only 16 per cent while the decline in registrations of General Motor cars for the same period amounted to 53 per cent. For the first half of 1930, registrations of Ford Motors in these eight counties declined 3 per cent from the corresponding period of last year, and the registrations of General Motors declined 38 per cent during the same period. The Ford continued to hold first place in the eight chief counties of Ohio as to the total number of registrations, with 43.3 per cent of the total in June as compared with 41.6 per cent in May, and with 29.8 per cent in June, 1929. For the first six months of 1930, Ford Motors accounted for 41.4 per cent of the total registrations of cars in these eight Ohio counties. The Chev-

CHART IV

NEW PASSENGER CAR SALES

Based on Average Daily Registrations of Bills of Sale, 1926 Equals 100
U. S. Figures from R. L. Polk & Co.

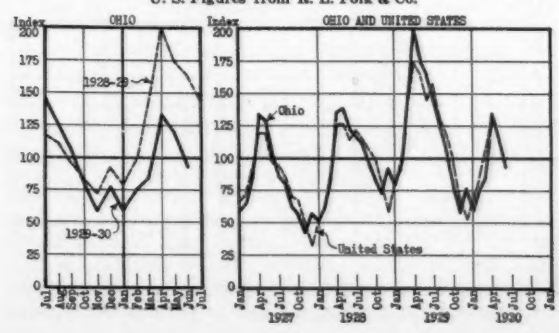


TABLE II

REGISTRATIONS OF NEW AUTOMOBILE BILLS OF SALE IN OHIO COUNTIES, JUNE, 1930

(The Counties Listed Represent Over 80 Per Cent of the Population of Ohio)

Source: Clerks of Courts of Listed Counties

County	Passenger Cars			Trucks		
	No.	Change from May 1930	Change from June 1929	No.	Change from May 1930	Change from June 1929
		%	%		%	%
Adams	49	— 29	— 36	6	+ 50	— 40
Allen	168	— 33	— 49	26	— 37	— 26
Ashtabula	229	— 23	— 41	22	— 31	— 27
Athens	94	— 25	— 34	9	— 53	+ 13
Belmont	172	— 36	— 45	16	+ 7	— 36
Brown	25	— 53	— 52	2	— 60	0
Butler	211	— 29	— 54	30	+ 15	— 39
Carroll	37	— 30	— 46	8	+167	0
Champaign	59	— 22	— 49	2	0	— 80
Cuyahoga	3,611	— 26	— 37	310	— 35	— 25
Darke	89	— 21	— 52	11	— 15	— 35
Defiance	35	— 31	— 68	14	+100	+ 56
Fairfield	86	— 42	— 40	7	— 50	— 46
Fayette	34	— 3	— 43	4	— 20	— 56
Franklin	994	— 20	— 38	107	— 34	— 25
Fulton	87	— 29	— 58	14	+ 56	+ 40
Gallia	44	— 32	— 27	6	+100	— 40
Geauga	37	— 36	— 26	0	—100	—100
Guernsey	112	— 35	— 33	11	— 39	— 8
Hamilton	1,555	— 18	— 30	166	— 29	— 60
Hancock	47	— 42	— 72	2	— 50	— 89
Henry	55	— 29	— 60	3	— 50	— 73
Highland	44	— 45	— 39	0	—100	—100
Hocking	24	— 41	— 54	4	— 56	— 64
Huron	107	— 18	— 46	9	— 10	— 25
Jackson	56	— 44	— 46	6	— 14	0
Jefferson	236	— 31	— 25	9	— 57	— 70
Knox	114	— 14	— 33	9	— 36	+ 80
Lake	198	— 4	— 21	20	— 9	— 23
Lawrence	77	— 19	— 47	6	— 50	— 76
Licking	159	— 19	— 46	14	+ 8	— 36
Lorain	255	— 31	— 50	27	— 23	— 39
Lucas	686	— 31	— 54	95	— 17	— 44
Mahoning	545	— 25	— 46	61	— 40	—
Medina	88	— 36	— 55	6	— 25	— 70
Meigs	38	— 56	— 55	14	— 7	+ 56
Miami	154	— 10	— 37	7	— 74	— 22
Montgomery	597	— 22	— 56	61	— 27	— 32
Morgan	29	— 6	— 9	2	— 60	— 60
Morrow	38	+ 27	— 32	2	+100	— 33
Muskingum	174	— 39	— 39	9	+ 13	+ 13
Ottawa	62	— 28	— 51	0	—100	—100
Paulding	20	— 31	— 76	5	—	— 38
Perry	82	— 15	— 35	4	— 50	— 50
Ross	86	— 29	— 36	9	— 18	— 31
Scioto	153	— 22	— 41	14	— 56	— 26
Seneca	94	— 41	— 62	14	— 22	— 30
Stark	531	— 33	— 55	—	—	—
Summit	930	— 28	— 50	—	—	—
Trumbull	345	— 26	— 43	31	+ 7	— 22
Union	37	— 18	— 30	3	— 40	0
Vinton	7	—	— 50	0	—	—100
Warren	39	— 34	— 63	1	— 67	— 91
Washington	83	— 47	—	10	— 0	—
Wayne	147	— 36	— 50	21	— 5	+ 5
Williams	81	— 28	— 51	9	+ 50	+ 50
Wyandot	42	— 41	— 60	4	— 43	— 50
Actual Total	14,188	— 26	— 44	1,262	— 29	— 38

TABLE III

TOTAL REGISTRATION OF NEW PASSENGER AUTOMOBILE BILLS OF SALE IN EIGHT OHIO COUNTIES*

In Cooperation with Ohio Council, National Automobile Dealers' Association

Make of Car	May 1930	June 1930	Change June, 1930 from May, 1930	Change from June 1929	Jan.-June 1930 Change from 1929
			%	%	%
Auburn Motors:	98	60	— 39	— 53	— 30
Auburn	82	48	— 41	— 62	— 39
Cord	16	12	— 25	—	—
Austin	0	3	—	—	—
Chrysler Motors:	1,231	1,028	— 16	— 21	— 19
Chrysler	300	274	— 9	— 19	— 13
DeSoto	238	194	— 17	— 41	— 19
Dodge	267	197	— 26	— 27	— 32
Plymouth	431	363	— 16	0	— 10
Durant	102	60	— 41	— 73	— 50
Elcar	1	0	—100	—100	— 96
Ford Motors:	5,243	4,132	— 21	— 16	— 3
Ford	5,216	4,091	— 22	— 17	— 3
Lincoln	27	41	+ 52	+ 28	— 24
Franklin	47	23	— 51	— 63	+ 22
Gardner	21	11	— 48	+ 38	— 34
General Motors:	3,760	2,449	— 35	— 53	— 38
Buick	261	216	— 17	— 46	— 47
Cadillac	68	43	— 37	— 9	— 27
Chevrolet	2,371	1,593	— 33	— 42	— 30
LaSalle	65	42	— 35	— 45	— 38
Marquette	75	43	— 43	— 71	+ 90
Oakland	110	64	— 42	— 53	— 29
Oldsmobile	347	234	— 33	— 68	— 55
Pontiac	444	212	— 52	— 76	— 56
Viking	19	2	— 89	— 93	— 7
Graham-Paige	186	138	— 26	— 58	— 55
Hudson Motors:	534	350	— 34	— 76	— 66
Essex	355	230	— 35	— 79	— 73
Hudson	179	120	— 33	— 63	— 51
Hupmobile	137	186	+ 36	— 24	— 33
Jordan	7	5	— 29	— 81	— 78
Kissel	1	1	0	— 67	— 64
Locomobile	0	0	—	—	—100
Marmon Motors:	86	78	— 9	— 57	— 39
Marmon	59	49	— 17	0	— 17
Roosevelt	27	29	+ 7	— 78	— 51
Nash	202	199	— 1	— 55	— 61
Packard	150	204	+ 36	+ 13	— 28
Peerless	69	42	— 39	— 67	— 52
Pierce-Arrow	37	34	— 8	— 36	— 9
Reo	45	26	— 42	— 54	— 36
Rolls-Royce	2	2	0	—	+ 50
Stearns-Knight	2	0	—100	—100	— 79
Studebaker Motors:	196	175	— 11	— 38	— 39
Erskine	13	1	— 92	— 95	+ 64
Studebaker	183	174	— 5	— 33	— 46
Stutz Motors:	5	3	— 40	— 88	— 68
Blackhawk	1	1	0	— 90	— 78
Stutz	4	2	— 50	— 86	— 64
Willys-Overland	389	239	— 39	— 81	— 75
Whippet	169	83	— 51	— 91	— 86
Willys-Knight	131	91	— 31	— 68	— 63
Willys-Six	89	65	— 27	—	—
Windsor	2	0	—100	—100	— 30
Miscellaneous	0	1	—	— 96	— 99
GRAND TOTAL	12,553	9,449	— 25	— 43	— 35

* Cuyahoga, Franklin, Hamilton, Lucas, Mahoning, Montgomery, Stark, and Summit.

rolet continued to hold second place in June with 16.9 per cent of total bill-of-sale registrations as compared with 18.9 per cent in May, and with 16.6 per cent in June, 1929. The bill-of-sale registrations of Fords and Chevrolets accounted for 60.2 per cent of the total registrations of cars in the eight chief counties of Ohio in June, and for 65.1 per cent of the total registrations in the United States in May (Table IV). Chart IV shows that bill-of-sale registrations of new passenger automobiles in Ohio since July, 1929, have declined each month as compared with the corresponding period of last year, and that the decline in Ohio has paralleled, in general, the decline in the country as a whole since April, 1929, with the exception of December, 1929, when registrations in Ohio showed a slightly upward trend, although they continued downward in the United States as a whole.

Industrial Consumption of Electric Power

The consumption of electric power by industries in Ohio increased in May from April in the State and Youngstown, but decreased in Toledo, Dayton, and Akron. The April-to-May increase in the State as a whole was slightly greater than the five-year average April-to-May increase and the increase in Youngstown compares favorably with the average change of the previous five years, but the decline in Toledo, Dayton, and Akron is in contrast to a substantial increase for the past five years. As compared with May of last year, there was a decline in the State as a whole and in Akron, Dayton, Toledo, and Youngstown. For the first five months of 1930, the average consumption of electric power showed no change from the same period of last year in the State and Dayton, but a decline in Akron, Toledo, and Youngstown.

TABLE IV

SALES RANKING OF LEADING MAKES OF PASSENGER AUTOMOBILES

Based on Bill-of-Sale Registrations

Percentage of Total Bill-of-Sale Registrations

Make of Car	Eight* Ohio Counties					U. S.†
	Rank	June 1930	May 1930	June 1929	Jan.-June 1930	May 1930
Ford	1	43.3	41.6	29.8	41.4	41.1
Chevrolet	2	16.9	18.9	16.6	19.4	24.0
Plymouth	3	3.8	3.4	2.2	2.3	2.9
Chrysler	4	2.9	2.4	2.0	2.3	2.5
Oldsmobile	5	2.5	2.8	4.4	2.7	2.9
Essex	6	2.4	2.8	6.7	3.1	2.4
Buick	7	2.3	2.1	2.4	2.1	2.9
Pontiac	8	2.2	3.5	5.4	3.6	2.8
Packard	9	2.2	1.2	1.1	1.2	.8
Nash	10	2.1	1.6	2.7	1.6	1.6
Dodge	11	2.1	2.1	1.6	2.0	2.7
DeSoto	12	2.1	1.9	2.0	2.0	1.2
Hupmobile	13	2.0	1.1	1.5	1.4	.9
Studebaker	14	1.8	1.5	1.6	1.4	1.2
Graham	15	1.5	1.5	2.0	1.4	1.4
Group Totals		90.1	88.4	82.0	87.9	90.4
All Others		9.9	11.6	18.0	12.1	9.6
Grand Total		100.0	100.0	100.0	100.0	100.0

* Cuyahoga, Franklin, Hamilton, Lucas, Mahoning, Montgomery, Stark, and Summit.

† Based on license registrations in 33 states reported by Polk & Co.

TABLE V

INDUSTRIAL CONSUMPTION OF ELECTRIC POWER IN OHIO

Average Month 1926 Equals 100

Source: Local Power Companies

City	Index May, 1930	Change May, 1930 from April, 1930	Average Change May, from April, 1925-1929	Change May, 1930 from May, 1929	Average Jan.-May, 1930 Change from 1929
Akron	91	— 1%	+ 4%	—17%	—18%
Dayton	131	— 6	+ 7	— 9	0
Toledo	146	— 3	+ 2	—17	—17
Youngstown	109	+ 4	0	—29	—25
STATE*	128	+ 2	+ 1	— 4	0

* Total power production from *U. S. Geological Survey.*

Building Vacancies in Ohio Cities

Building vacancies, as indicated by the percentage of

TABLE VI

BUILDING VACANCY IN OHIO CITIES

(As indicated by percentage of Gas Meters Vacant)

Average Month 1926 Equals 100

Source: Local Gas Companies

City	Index May, 1930	Change May, 1930 from April, 1930	Average Change May, from April, 1925-1929	Change May, 1930 from May, 1929	Average Jan.-May, 1930 Change from 1929
Akron	94	—10%	— 3%	— 7%	+ 3%
Cleveland	35	+23	+ 3	— 4	—13
Columbus	138	+15	+ 4	+39	— 2
Youngstown	31	— 6	+ 6	—32	—26

idle gas meters, declined in May from April in Youngstown and Akron, but increased substantially in Cleveland and Columbus. As compared with May of last year, building vacancies declined in Youngstown, Cleveland, and Akron, and increased in Columbus. The April-to-May decline in Youngstown is in contrast to a five-year average increase in May from April, while the decline in Akron was substantially greater than the five-year average decline from April to May. The increase in Cleveland and Columbus was substantially greater than the average increase in May from April for the past five-year period.

Agricultural Income in Ohio

In Table VII are shown the changes in the gross cash agricultural income in various lines of agricultural products of Ohio. There was an increase of 3 per cent in the gross cash income from all sources shown in the table in June as compared with May, but a decrease of 18 per cent, as compared with June, 1929, and a decrease of 10 per cent for the first half of 1930, as compared with the first half of 1929. The increase in June from May was caused primarily by increases in the dairy products and the wool groups. All other groups, except the potatoes group, showed a decline in June from May. The decline from June of last year was caused by declines in the meat animals, dairy products, and poultry and eggs groups; the grains, the potatoes, and the wool groups showed substantial increases, as compared with June of last year.

TABLE VII

GROSS CASH AGRICULTURAL INCOME IN OHIO—JUNE, 1930

(Average of the 60 Months 1924-1928 Equals 100)

Source: Department of Rural Economics, Ohio Agricultural Experiment Station

Commodity	Index June 1930	Change June, 1930, from May, 1930	Change June, 1930 from June, 1929	Average Jan.-June, 1930 Change from 1929
		%	%	%
Meat Animals	78	— 7	— 13	+ 9
Dairy Products	99	+ 5	— 24	— 19
Grains	47	— 8	+ 34	+ 33
Poultry and Eggs	75	— 24	— 46	— 21
Potatoes	19	0	+138	+127
Wool	522	+1584	+ 6	— 22
Tobacco	—	—	—	—
TOTAL	82	+ 3	— 18	— 10

BUSINESS CONDITIONS IN OHIO CITIES

Business activity in Ohio as reflected in bank debits, passenger automobile bill-of-sale registrations, the value of construction contracts awarded, and employment, is shown in Table VIII.

Akron

There was an increase in June from May in construction employment and in bank debits in Akron, but in both instances the increase was less than the five-year average May-to-June increase. Industrial and manufacturing employment declined in June from May as did also the value of construction contracts awarded and passenger automobile bill-of-sale registrations. The May-to-June decline in manufacturing and industrial employment compares badly with the five-year average May-to-June increase, while the decline in construction contracts awarded compares with a substantial increase from May to June for the past five-year period, and the decline in passenger automobile bill-of-sale registrations is substantially greater than the usual seasonal decline for this period. As compared with June, 1929, there was a substantial decline in industrial and manufacturing employment and a slight decline in construction employment. The smallness of the declines in construction employment as compared with employment in the other two groups is due primarily to the fact that construction employment in June of last year was already at a low point. Passenger automobile bill-of-sale registrations declined 50

TABLE VIII

SUMMARY OF BUSINESS CONDITIONS IN OHIO CITIES, JUNE, 1930

City	Change June, from May, 1930	Average Change June from May, 1925-29	Change June, 1930 from June, 1929	Change June from May, 1930	Average Change June from May, 1925-29	Change June, 1930 from June, 1929
	Industrial Employment			Manufacturing Employment		
	%	%	%	%	%	%
Akron	— 1	+ 2	—22	— 2	+ 1	— 23
Canton	— 4	0	—15	— 5	0	— 17
Cincinnati	— 2	+ 1	—11	— 2	0	— 13
Cleveland	— 2	0	—13	— 2	0	— 15
Columbus	+ 1	0	— 6	0	0	— 5
Dayton	— 3	+ 2	—14	— 4	+ 2	— 16
Toledo	— 7	— 2	—38	— 8	0	— 41
Youngstown	— 4	0	—12	— 4	— 1	— 12
Other than 8 cities	— 2	+ 2	— 7	— 3	+ 1	— 13
STATE	— 3	+ 1	—16	— 3	0	— 18
	Construction Employment			Value of Construction Contracts Awarded		
Akron	+ 9	+11	— 2	—57	+ 23	— 46
Canton	+19	+ 7	+82	+47	—	+ 41
Cincinnati	— 6	+ 3	— 9	+26	— 9	— 7
Cleveland	— 9	+ 6	—11	+75	+ 32	— 34
Columbus	+14	+ 3	+ 7	+35	— 14	— 50
Dayton	— 3	+ 5	—10	+305	+129	— 22
Toledo	— 1	+17	—49	—72	+ 61	— 77
Youngstown	—31	+11	—66	+61	+ 40	— 59
Other than 8 cities	+12	+16	—27	— 3	—	+ 9
STATE	+ 1	+ 8	—17	+ 5	— 5	— 16
	Bank Debits			Passenger Automobile Bills-of-Sale Filed		
Akron	+ 4	+ 5	—15	—28	—17*	— 50
Canton	0	+ 9	—19	—33	—13	— 55
Cincinnati	+12	+ 6	— 6	—18	—16	— 30
Cleveland	+ 4	+ 8	— 8	—26	— 9	— 37
Columbus	+ 6	+ 4	+ 4	—20	—12	— 38
Dayton	+ 9	+10	—10	—22	— 4	— 56
Toledo	— 3	+ 7	—20	—31	—22	— 54
Youngstown	+ 2	+10	—14	—25	+ 6**	— 46
Other than 8 cities	+ 5	+ 7	—39	—29	— 9	— 46
STATE	+ 5	+ 7	— 9	—26	—	— 44

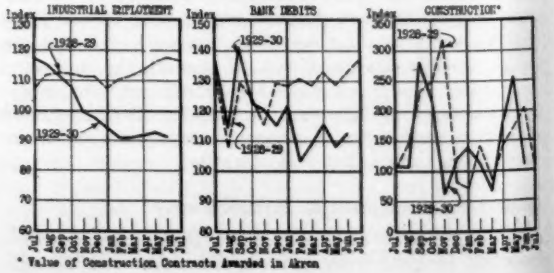
* Average change June from May, 1927-1929.

** Positive change is due to an increase of 40 per cent in 1927 in June from May.

CHART V

BUSINESS CONDITIONS IN AKRON

Average Month 1926 Equals 100



* Value of Construction Contracts Awarded in Akron

per cent in June from the same month of last year, the value of construction contracts awarded, 40 per cent, and bank debits, 15 per cent. In spite of the slight May-to-June increase in construction employment and bank debits, business conditions in Akron appear to have declined in June both as compared with the preceding month and with the same month of last year.

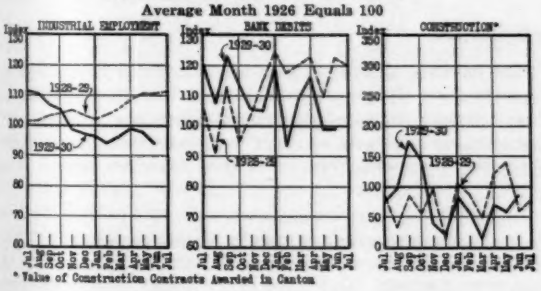
Canton

There was an increase in construction employment and the value of construction contracts awarded in Canton in June from May, and a decrease in industrial employment, manufacturing employment, and passenger automobile bill-of-sale registrations. The increase in construction employment was slightly greater than the average May-to-June increase for the past five-year period, while the declines in industrial and manufacturing employment were in contrast to a relatively stable condition of employment from May to June during the past five-year period. As compared with June, 1929, construction employment increased 32 per cent, while industrial and manufacturing employment declined 15 and 17 per cent, respectively. The value of construction contracts awarded increased 41 per cent as compared with June of last year, passenger automobile bill-of-sale registrations, declined 55 per cent, and bank debits, 19 per cent. With the exception of the slight revival in the construction industry, business conditions in Canton appear to have declined both in comparison with May and with June, 1929.

CHART VI

BUSINESS CONDITIONS IN CANTON

Average Month 1926 Equals 100



* Value of Construction Contracts Awarded in Canton

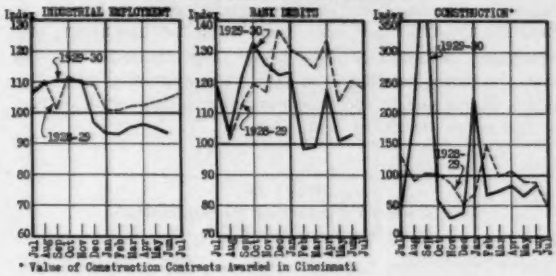
Cincinnati

There was an increase in Cincinnati in the value of construction contracts awarded in June from May and in bank debits, but a decrease in all types of employment and in passenger automobile bill-of-sale registrations. The May-to-June decline in total industrial employment in Cincinnati compares unfavorably with the five-year average May-to-June increase of 1 per cent, and the decline in the construction industry, with the five-year average increase of 3 per cent. The increase in the value of construction contracts awarded, however, compares favorably with the five-year average May-to-June decrease of 9 per cent. The decline in passenger automobile bill-of-sale registrations in June from May was only slightly greater than the average May-to-June decline for the past five-year period. As compared with June, 1929, there was a substantial decline in all types of employment in Cincinnati and in the value of construction contracts awarded, bank debits, and passenger automobile bill-of-sale registrations. In spite of the increase in bank debits in June from May, and the increased activity in the construction industry, business conditions in Cincinnati appear to have declined in June both as compared with May and with June, 1929.

CHART VII

BUSINESS CONDITIONS IN CINCINNATI

Average Month 1926 Equals 100



* Value of Construction Contracts Awarded in Cincinnati

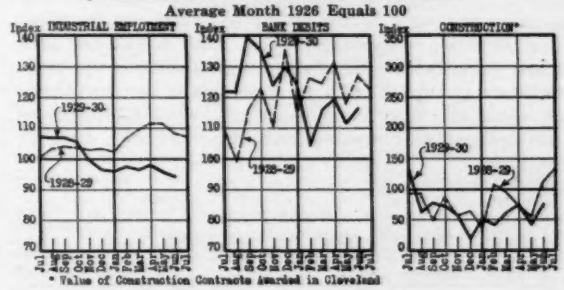
Cleveland

There was an increase in bank debits and the value of construction contracts awarded in Cleveland in June as compared with May. The increase in construction contracts awarded was substantially greater than the five-year average May-to-June increase, but the increase in bank debits was somewhat less than the five-year average increase. All types of employment in June showed a further decline from May, as did also passenger automobile bill-of-sale registrations. The 9 per cent decline in construction employment is in contrast to the May-to-June increase of 6 per cent for the past five-year period, while the decline in industrial and manufacturing employment was somewhat greater than the seasonal decline. As compared with June, 1929, there was a substantial decline in all types of employment, in the value of construction contracts awarded, bank debits, and passenger automobile bill-of-sale registrations. With the exception of the improvement in the construction industry, business conditions in Cleveland were less satisfactory in June than in May or than in June, 1929.

CHART VIII

BUSINESS CONDITIONS IN CLEVELAND

Average Month 1926 Equals 100



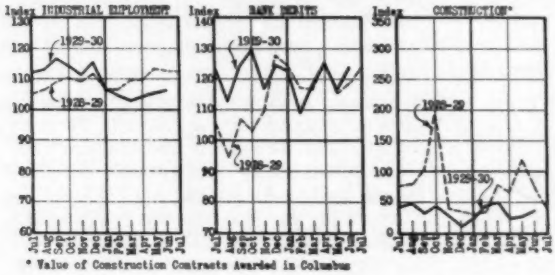
* Value of Construction Contracts Awarded in Cleveland

Columbus

There was a substantial increase in Columbus in construction employment in June from May, and in the value of construction contracts awarded and bank debits. The increase in construction employment was considerably greater than the average increase from May to June for the past five-year period, while the increase in the value of construction contracts awarded compares favorably with the five-year average decline of 4 per cent from May

to June. The increase of 1 per cent in industrial employment was slightly more than the seasonal change. As compared with June, 1929, there was a slight decline in both industrial and manufacturing employment but a decrease in construction employment. The employment decline as compared with June of last year was smaller in Columbus than in any other city of the State. The value of construction contracts awarded in Columbus in June declined 50 per cent from June of last year, and passenger automobile bill-of-sale registrations, 38 per cent. Business conditions in Columbus appear more favorable with respect to the preceding month than with respect to the same month of last year.

CHART IX
BUSINESS CONDITIONS IN COLUMBUS
Average Month 1926 Equals 100

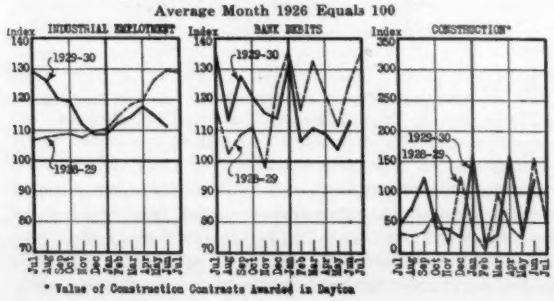


* Value of Construction Contracts Awarded in Columbus

Dayton

There was a decline in Dayton in all types of employment in June from May and in the bill-of-sale registrations of passenger automobiles, but an increase in the value of construction contracts awarded and in bank debits. The increase in bank debits, however, was less than the usual seasonal increase from May to June, but the increase in the value of construction contracts awarded was considerably greater than the average May-to-June increase for the past five-year period. All types of employment in Dayton showed a decline in June from May, and the declines in all cases were in contrast with May-to-June increases in employment for the past five-year period. As compared with June, 1929, all types of employment showed a decline in Dayton as did also the value of construction contracts awarded, bank debits, and passenger automobile bill-of-sale registrations. Business conditions in Dayton, with the exception of the increase in the value of construction contracts awarded, appear to have declined as compared with May, and with June of last year.

CHART X
BUSINESS CONDITIONS IN DAYTON
Average Month 1926 Equals 100

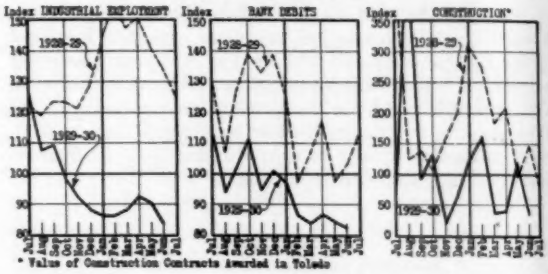


* Value of Construction Contracts Awarded in Dayton

Toledo

Declines in all types of employment in Toledo in June from May were either greater than the average May-to-June decline for the past five-year period or in contrast to an unchanged condition or an employment increase. The decline in the value of construction contracts awarded in June from May compares unfavorably with the five-year average May-to-June increase of 61 per cent, and the decline in the bill-of-sale registrations of passenger automobiles was somewhat greater than the average May-to-June decline over the past five-year period. As compared with June, 1929, there was a substantial decline in all types of employment and in the value of construction contracts awarded, bank debits, and passenger automobile bill-of-sale registrations. Business conditions in Toledo in June appear unsatisfactory both in comparison with the preceding month and with the same month of last year.

CHART XI
BUSINESS CONDITIONS IN TOLEDO
Average Month 1926 Equals 100

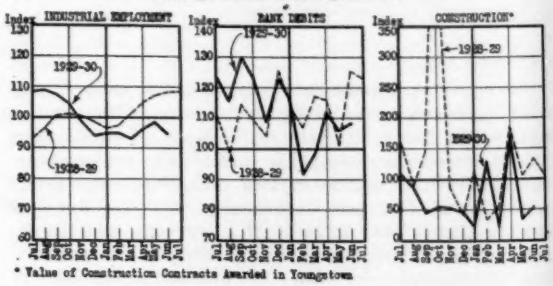


* Value of Construction Contracts Awarded in Toledo

Youngstown

The increase of 2 per cent in bank debits in Youngstown in June from May was considerably less than the five-year average May-to-June increase, but the increase in construction contracts awarded was substantially greater than the five-year average May-to-June increase. All

CHART XII
BUSINESS CONDITIONS IN YOUNGSTOWN
Average Month 1926 Equals 100



* Value of Construction Contracts Awarded in Youngstown

types of employment in Youngstown declined in June from May and the decline was considerably greater than the average decline from May to June for the past five-year period in the manufacturing industries, while in the construction industry the decline in June was in contrast to a substantial May-to-June increase over the past five-year period. As compared with June, 1929, all types of employment showed a substantial decline as did also the value of construction contracts awarded, bank debits, and passenger automobile bill-of-sale registrations. Business

conditions in Youngstown appear to have declined in June, both as compared with May and with June, 1929.

Other than Eight Cities

In the State, outside the eight chief cities, there were also declines in industrial and manufacturing employment in June from May, as well as in the value of construction contracts awarded, and the bill-of-sale registrations of automobile bills of sale. The increase in construction employment in the State outside the eight chief cities was less than the five-year average May-to-June increase, as was also the increase in bank debits. As compared with June of last year, all types of employment in the State outside the eight chief cities showed substantial declines as did also bank debits and passenger automobile bill-of-sale registrations. The value of construction contracts awarded in the State, outside the eight chief cities, showed a slight increase in June as compared with the same month of last year.

THE TREND OF BUSINESS

Banking and Credit Conditions

Interest rates on all classes of paper and for all maturities continued sharply downward throughout June. The seasonally adjusted average daily renewal rate on call loans for June was 2.64 per cent, the lowest rate since November, 1924, and the average rate on 60-90-day time money of 3.01 per cent was the lowest rate since October, 1924, while, with the single exception of July, 1924, the rate on 90-day banker's acceptances reached the lowest point for the post-war period.

On July 7, call money at 2.25 per cent, time money (4-6 months) at 2.63 per cent, and 60-90-day commercial paper at 3.25 per cent, represented declines from the same day of the previous month of 25 per cent, 19 per cent, and 7 per cent, respectively. The substantial May-to-June decline in interest rates was in sharp contrast to an average May-to-June increase of 1 per cent during the past five-year period. On July 7, the call money rate showed a decline from the same date of last year of 68 per cent, the time money rate, of 65 per cent, and the commercial paper rate, of 46 per cent. For the first half of 1930 as compared with the first half of 1929, the rate on call money declined 54 per cent, on time money, 50 per cent, and on commercial paper (60-90 days), 25 per cent. Call money on the stock exchange has been plentiful in supply, and the rate on call loans fell as low as 2 per cent on several occasions before the middle of July.

Brokers' loans declined steadily throughout June. According to the Stock Exchange statement the contraction for the month of June was over a billion dollars, following a decline of over 315 million dollars in May. On July 9, brokers' loans in New York City were 22 per cent less than on the same day of the preceding month, and 44 per cent less than on the same date of last July. In spite of the January to May expansion in loans, the average of such loans for the first six months of 1930 was 34 per cent behind the average for the first six months of 1929. Member bank borrowing from Federal Reserve banks declined slightly in June from May, but the decline was little more than seasonal according to the average change in member bank borrowing for the past five years. However, member bank rediscounts on July 9, were 80 per cent less than on the same date a year ago, and for the first half of 1930, were 68 per cent less than for the first half of 1929. Federal Reserve banks continued to increase their investments in United States securities in June, the amount on July 9 being 9 per cent greater than on the same date in June, and 334 per cent greater than on the same date of last year. There was some reduction in Federal Reserve bank holdings of bills bought in the open Market in June, and on July 9, the amount of such holdings was 21 per cent less than on June 9, but even after the decline the amount was 126 per cent greater than on the corresponding date of last year. The increase of 203 per cent in Federal Reserve bank holdings of United States securities during the first six months of 1930 as compared with the same period of last year, and the very slightness of the decline in the holdings of bills bought in the open market during the same period, both reflect the continued easy-money policy of the Federal Reserve bank (Table IX).

TABLE IX
BANKING CONDITIONS
Source: Federal Reserve Board

Item	Latest Data	Change from Corresponding Period Last Month	Average Change from Corresponding Period Last Month, 1923-29	Change from Corresponding Period Last Year	Average January-June, 1930 Change from 1929
INDEX OF BANK DEBITS, June, 1930:		%	%	%	%
Ohio	110	+ 5	+ 7	— 9	— 10
United States outside of New York City	113	+ 3	+ 4	— 8	— 9
New York City	135	+ 1	+ 1	— 16	— 26
INTEREST RATES, July 7, 1930:					
Call Money	2.25%	—25	+ 1	— 68	— 54
Commercial Paper (60-90 days)	3.25%	— 7	+ 1	— 46	— 27
Time Money (4-6 months)	2.63%	—19	+ 1	— 65	— 50
New York Federal Reserve Rediscount Rate	2.50%	—17	0	— 50	— 30
FEDERAL RESERVE ITEMS, July 9, 1930:					
Investment in U.S. Bonds*	$590.6	+ 9	—	+334	+203
Bills Bought in Open Market*	$148.9	—21	—	+126	— 1
Member Banks Rediscounts*	$236.3	— 1	— 1	— 80	— 68
Reserve Ratio	81.7	— 1	— 2	+ 12	+ 12
LOANS TO BROKERS, July 9,1930:					
(New York City)*	$3203	—22	+ 2	— 44	— 34

* In millions.

TABLE X
NET GOLD IMPORTS INTO THE UNITED STATES
1929-1930
(In Thousands of Dollars)

Month	1928-29*	1929-30*
December	$ 23,304	$—64,426
January	47,199	3,960
February	25,488	59,991
March	24,835	55,478
April	23,093	65,432
May	23,631	23,468
Six Months Ending with May	$ 167,550	$143,903
January to May	144,246	208,329
Twelve Months Ending with May	44,966	239,152

* (—) Denotes net export of gold.

The Stock Market

The stock market suffered the most drastic decline in June that has occurred since the historic decline of November. The decline was rapid and uninterrupted throughout the first three weeks of the month. During the last

week of June there was a slightly upward reaction which carried the leaders of the list to a level five to ten points higher than that held at the bottom of the decline. During the first week in July, a second reaction occurred which wiped out most of the gains of the preceding week. Beginning with the second week of July, however, the market turned upward again and continued upward through the first half of the month, although the volume of trading continued small. During the period from June 4 to July 9, the index of 404 stocks combined declined 27.1 points, and the index of 337 industrials, 26.3 points. The Standard Statistics index of 90 stocks combined declined 39.8 points during the period from June 2 to June 24, the index of 50 industrials, 39.4 points, of 20 railroads, 14.5 points, and of 20 public utilities, 65.1 points. The May decline in stock prices was experienced in every group of stocks listed in Table XI. The declines ranged from 2.3 points in three shoe stocks to 148.2 points in ten airplane stocks. Declines of from 20 to 50 points were common, and declines of less than 10 points were rare.

TABLE XI

INDEXES OF COMMON STOCK PRICES—BY GROUPS

Source: Standard Statistics Company

Group	July 9, 1930	Change in Points from June 4, 1930	1930 Range	
			High	Low
404 Stocks Combined	144.4	— 27.1	184.2	139.8
337 Industrials	135.1	— 26.3	174.1	130.6
33 Rails	122.3	— 10.3	145.5	117.2
34 Utilities	207.6	— 46.3	267.4	202.2
4 Agricultural Implements	278.0	— 81.0	413.0	276.4
10 Airplane	374.1	—148.2	662.7	340.6
8 Apparel	65.2	— 10.4	92.0	62.1
13 Automobiles	124.9	— 29.2	173.6	121.2
15 Auto Parts and Accessories	114.3	— 38.7	185.8	111.0
7 Auto Tires	72.4	— 29.3	118.6	72.3
13 Building Equipment and Supplies	96.1	— 18.0	132.0	90.7
9 Chemical (Industrial)	205.5	— 51.5	292.7	199.1
4 Coal—Anthracite	48.4	— 14.5	67.2	47.4
5 —Coal—Bituminous	87.3	— 22.9	131.5	87.3
9 Copper and Brass	128.7	— 23.0	204.1	121.8
12 Cotton Goods	75.0	— 5.6	93.9	70.0
7 Drugs, Medicine and Cosmetics	144.7	— 16.3	174.7	136.1
4 Electrical Equipment	265.8	— 69.5	372.5	250.9
4 Fertilizer	52.7	— 16.5	81.6	49.1
20 Food Products	145.6	— 18.8	164.4	137.7
13 Household Products and Supplies	127.3	— 20.4	150.5	125.7
5 Lead and Zinc	106.0	— 15.9	142.0	102.6
4 Leather	46.0	— 12.9	73.0	46.0
10 Machinery	151.3	— 18.4	178.7	139.7
5 Meat Packing	96.2	— 9.4	109.7	91.7
9 Misc. Mining and Smelting	169.0	— 53.1	265.3	169.0
9 Misc. Manufacturing	172.8	— 46.2	230.7	172.4
6 Misc. Services	127.4	— 28.9	170.7	122.5
5 Office and Business Equipment	194.5	— 53.1	284.2	191.5
16 Oil	129.7	— 18.2	159.3	124.0
6 Paper	121.0	— 35.9	176.2	116.7
10 Radio, Phonograph, Etc.	236.6	—110.0	428.4	230.5
9 Railroad Equipment	92.0	— 16.6	130.0	91.3
5 Rayon	71.9	— 10.9	93.8	69.2
25 Retail Trade	97.8	— 19.9	124.1	93.5
7 Shipping and Shipbuilding	122.2	— 18.6	148.7	118.0
3 Shoes	130.7	— 2.4	146.5	126.2
6 Silk Goods	51.4	— 12.2	68.9	48.5
10 Steel	154.4	— 19.0	201.2	151.3
9 Sugar	55.6	— 7.0	77.2	53.8
30 Textiles	65.9	— 10.5	85.9	62.8
7 Theatres, Moving Pictures, Etc.	105.1	— 41.8	154.1	82.4
10 Tobacco Products	143.7	— 16.4	161.0	133.9
4 Woolen Goods	38.4	— 14.5	64.7	32.5
13 Electric, Gas, Water, Etc., Holding Companies	261.5	— 80.2	363.5	254.1
7 Electric, Gas, Water, Etc., Operating Companies	232.5	— 42.1	283.6	213.5
5 Telegraph and Telephone	161.7	— 22.0	196.4	159.3
9 Traction, Motor Bus, Etc.	72.4	— 8.1	88.0	71.0

Iron and Steel

The decline of 4 per cent in the average daily production of pig iron in Ohio in June from May compares unfavorably with the five-year average decline of 1 per cent from May to June, as does also the 6 per cent decline in the United States as a whole as compared with the five-year average decline of 4 per cent. The average daily production of pig iron in Ohio in June was 24 per cent less than in June, 1929, and average production for the first six months of 1930 was 20 per cent behind average daily production for the corresponding period of last year. In the United States, average daily production of pig iron in June was 21 per cent less than in June of last year, while production for the first six months of 1930 was 16 per cent less than for the same period of last year. The average daily production of steel in the United States declined 8 per cent in June from May, which was slightly

TABLE XII

IRON AND STEEL CONDITIONS

Sources: Iron Trade Review and Iron Age

Item	June, 1930	Change June, 1930 from May, 1930	Average Change June, from May, 1925-29	Change June, 1930 from June, 1929	Average Jan.-June, 1930 Change from 1929
PRICES:		%	%	%	%
Pig Iron (per ton)	$ 17.47	— 1	— 1	— 6	— 4
Finished Steel (per lb.)	.02206	— 1	0	— 9	— 5
Scrap (No. 1 wrought at Chicago, per ton)	11.45	—10	— 3	—26	—18
UNFILLED ORDERS U. S. STEEL CORP.:					
(tons)	3,968,064	— 2	— 2	— 7	+ 1
OPERATIONS:					
Average Daily Pig Iron Prod. (tons):					
Ohio	21,926	— 4	— 1	—24	—20
United States	97,830	— 6	— 4	—21	—16
Average U. S. Daily Steel Prod. (tons)	137,610	— 8	— 7	—30	—18

greater than the five-year average May-to-June decline. Average daily steel production in June was 30 per cent less than in June of last year, while production for the first six months of 1930 was 18 per cent less than production for the first six months of 1929. The decline of 20 per cent in the unfilled orders of the United States Steel Corporation in June from May was no greater than the average May-to-June decline in unfilled orders for the past five-year period, although the volume of unfilled orders in June was 7 per cent less than the volume in June of last year. For the first six months of 1930, however, the unfilled orders of the United States Steel Corporation were slightly greater than for the same period of last year.

The decline of 1 per cent in the average price of pig iron in June from May was no greater than the five-year average May-to-June decline in pig iron prices. The June price was 6 per cent lower than in June of last year, while the average price for the first six months of this year was 4 per cent less than for the corresponding period of last year. The decline of finished steel prices in June from May was slightly greater than the usual seasonal decline, and the price of steel in June was 9 per cent less than in June of last year, while the average for the first half of 1930 was 5 per cent below the average for the first half of 1929. The 10 per cent decline in the average price of scrap iron in June from May was substantially greater than the usual seasonal decline. Scrap iron prices in June were 26 per cent lower than in June of last year, while for the first six months of this year the average price of scrap was 18 per cent lower than for the same period of last year.

Construction Contracts Awarded

The value of construction contracts awarded in 37 Eastern states in June was 37 per cent greater than in May, and 10 per cent greater than in June, 1929. The May-to-June increase was greater than the average May-to-June increase for the past five years, and was the largest total for any month except April and July, 1929, for the past two-year period. In spite of the May-to-June increase in the total value of construction, however, the cumulative total for the first six months of 1930 was 13 per cent behind the total for the same period of 1929. For the first six months of 1930, only 5 districts—the Up State New York, the St. Louis Territory, the Kansas City Territory, the Texas, and the Southeastern Territory—showed an increase. The increase in June from May occurred in the New England, the Middle Atlantic, the Pittsburgh, the Chicago Territory, the St. Louis Territory, the Kansas City Territory, and the Texas districts. The declines for the first six months of this year from the corresponding period of last year ranged from 2 per cent in the Central Northwest to 43 per cent in the New Orleans Territory (Table XIII). The 37 per cent increase in the total value of construction contracts awarded in June as compared with May was caused primarily by the 94 per cent increase in public works and utilities contracts, and the 27 per cent increase in non-residential building contracts. Residential building continued to decline in June and the June decline from May was considerably more than the usual seasonal decline, while the volume of residential construction for June was 49 per cent less than for June, 1929, and the average for the first half of 1930 was 47 per cent less than for the first half of 1929. Public works and utilities contracts in June showed an increase of 108 per cent from June of last year, and the cumulative total of such contracts for the first half of 1930 was 39 per cent ahead of the total for the same period of last year. For the first half of 1930, residential building contracts were $508,000,000 behind the total for last year, non-residential building contracts $110,000,000 behind last year, and public works and utilities contracts, $241,000,000 ahead. The increase in public works and utilities contracts, however, was insufficient to overcome the declines in other types of building, so that the net decrease in all new contracts for the first half of 1930 amounted to $377,000,000.

TABLE XIII

DAILY AVERAGE VALUE OF CONSTRUCTION CONTRACTS AWARDED IN 37 EASTERN STATES BY TYPES AND BY DISTRICTS

(In Thousands)
Source: F. W. Dodge Corporation

Type and District	June, 1930	Change June from May, 1930	Average Change June from May, 1925-1929	Change June, 1930 from June, 1929	Average Jan.-June, 1930 Change from 1929
By Types:		%	%	%	%
Commercial	$ 23,632	— 16	+ 5	— 27	— 16
Industrial	37,447	+ 78	— 2	+ 34	— 16
Educational	19,568	+ 38	+ 11	+ 13	— 4
Miscellaneous—Non-Residential	20,090	+ 27	+ 4	+ 23	+ 13
Total Non-Residential	100,737	+ 27	+ 6	+ 7	— 8
Residential	38,726	— 14	— 5	— 49	— 47
Total Building	139,463	+ 12	+ 1	— 18	— 26
Pub. Works and Util.	100,766	+ 94	— 1	+108	+ 39
Total Construction	240,229	+ 37	0	+ 10	— 13
By Districts:					
New England	$ 15,236	+ 8	— 18	+ 7	— 12
Metropolitan New York and Vicinity	32,130	— 13	+ 6	— 5	— 13
Upstate New York	8,583	— 9	— 7	— 6	+ 8
Middle Atlantic	33,280	+131	0	+ 30	— 15
Pittsburgh	24,813	+ 13	+ 3	+ 7	— 6
Chicago Territory	33,504	+ 46	+ 18	— 20	— 32
Southern Michigan	7,792	— 9	— 9	— 33	— 45
Central Northwest	6,223	+ 47	— 10	+ 64	— 2
St. Louis Territory	25,393	+202	+ 6	+201	+ 9
Kansas City Territory	26,093	+259	0	+187	+ 48
Texas	11,477	+108	— 10	+108	+ 11
New Orleans Territory	3,678	— 33	+ 39	— 76	— 43
Southeastern Territory	12,027	— 28	— 19	+ 19	+ 6
Total Construction	240,229	+ 37	0	+ 10	— 13

Automobile Production

Passenger automobile production in the United States declined in May from April and was almost 30 per cent less than in May, 1929, and for the first five months of 1930 was 32 per cent behind the total of the corresponding period of 1929. The April-to-May decline in passenger automobile production in the United States was greater than the five-year average April-to-May decline. Truck production in the United States declined 20 per cent in May from April, and 38.6 per cent from May, 1929, and for the first five months of 1930 was 23.1 per cent behind production for the same period of 1929. The decline in truck production in May from April was substantially greater than the average April-to-May decline for the past five-year period (Table XIV). General Motors' sales to dealers in the United States declined 7.2 per cent in May from April and 22 per cent from May, 1929, while the total sales for the first five months of 1930 were 19.2 per cent less than for the corresponding period of last year. Dealers' sales in the United States and foreign countries declined 2.1 per cent in May from April, and 33 per cent from May of last year, while the total for the first five months of this year was 31.3 per cent less than the total for the same period of last year.

TABLE XIV

AUTOMOBILE PRODUCTION IN THE UNITED STATES AND CANADA, AND GENERAL MOTORS' SALES

Sources: U. S. Department of Commerce and General Motors' Corporation

Group	May, 1930	Change May, 1930, from April, 1930	Average Change May from April, 1925-29	Change May, 1930, from May, 1929	Average Jan-May 1930 Change from 1929
PASSENGER CAR PRODUCTION:		%	%	%	%
United States	362,270	— 3.3	— 2.2	—29.6	—32.1
Canada	21,251	+ 1.8	+14.4	—15.4	—39.9
U. S. and Canada	383,521	— 3.0	— 1.5	—29.0	—32.5
TRUCK PRODUCTION:					
United States	54,370	—19.5	— 2.7	—38.6	—23.1
Canada	3,421	+ 1.1	+ 3.7	—46.8	—54.6
U. S. and Canada	57,791	—18.5	— 2.8	—39.1	—25.7
GENERAL MOTORS' SALES:					
Dealers' Sales, U. S.	131,817	— 7.2	—	—22.0	—19.2
Division Sales, U. S.	136,169	+ 2.9	— 0.8	—22.6	—22.7
Dealers' Sales, U. S. and Foreign	147,483	— 2.1	—	—33.0	—31.3

Retail Trade

Department store sales in the United States declined 9 per cent in June as compared with June, 1929, and 4 per cent for the first half of this year as compared with the first half of last year. The decrease in department store sales from June of last year was experienced in all the Federal Reserve districts, the decline ranging from 3 per cent in the New York district to 17 per cent in the Chicago district. In the Cleveland district, department store sales in June were 13 per cent less than in the same month of last year, and sales for the first half of 1930

were 7 per cent behind the total for the corresponding period of 1929.

Wholesale Prices

On July 8, the wholesale price index showed a decline of 5.3 per cent from June 10, and a decline of 24.5 per cent from July 9, 1929. The May-to-June decline in commodity prices was confined to no particular groups of products. The building materials group was the only group to show no further decline in prices in June from May and in this

TABLE XV

INDICES OF U. S. WHOLESALE PRICES BY COMMODITY GROUPS—JULY 1, 1930

Average Month 1913 Equals 100

Source: The Annalist

Commodities	Index June 10, 1930	Index July 8, 1930	Change in points from June 10, 1930	Change in points from July 9, 1929
Farm Products	123.4	114.0	— 9.4	—32.5
Food Products	133.5	128.9	— 4.6	—24.5
Textile Products	121.6	117.7	— 3.9	—29.6
Fuels	155.1	153.6	— 1.5	— 9.5
Metals	113.4	110.8	— 2.6	—17.5
Building Materials	142.7	142.7	0	—10.4
Chemicals	129.5	128.8	— .7	— 5.8
Miscellaneous	106.4	104.7	— 1.7	—26.0
ALL COMMODITIES	129.6	124.3	— 5.3	—24.5

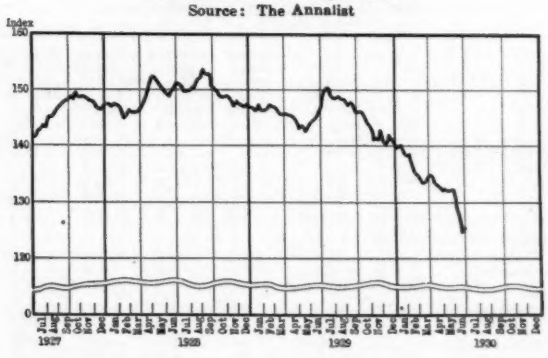
group prices showed no upward tendency. The decline as compared with July of last year was also experienced in every group of products shown in Table XV, being greatest in the farm products, the textile products, and the food products groups, and least in the chemicals and the fuels groups.

CHART XIII

WEEKLY INDEX OF WHOLESALE PRICES JULY, 1926, TO JULY 1, 1930

Average Month 1913 Equals 100

Source: The Annalist



Foreign Trade and Prices

The merchandise exports of the United States declined 4 per cent in May from April, 15 per cent from May, 1929, and 18 per cent during the first five months of 1930, as compared with the same period of last year. The merchandise imports of the United States declined 7 per cent in May from April, 29 per cent from May, 1929, and 23 per cent during the first five months of 1930, as compared with the corresponding period of last year. Due to the relatively large decline in imports, the excess of exports increased 42 per cent in May from April in spite of the decline in exports. The excess of exports for the first five months of 1930 was 19 per cent greater than for the corresponding period of 1929 (Table XVI). Gold exports from the United States declined 23 per cent in May from April and 82 per cent from May of last year, but for the first five months of 1930 were still 48 per cent ahead of the first five months of last year. Gold imports of the United States declined 64 per cent in May from April and 2 per cent from May of last year, but for the first five months of this year were 45 per cent greater than for the first five months of last year. Although there was a substantial decline in gold exports in May from April and a decline in the excess of imports for the same month, there was a 44 per cent increase in the excess of gold imports during the first five months of 1930, as compared with the same period of 1929.

The merchandise exports of the United Kingdom increased 9 per cent in May from April, but were 24 per cent less than in May, 1929, and 15 per cent less for the

TABLE XVI

FOREIGN TRADE OF CHIEF INDUSTRIAL NATIONS

(In Millions)

Source: U. S. Department of Commerce

Country	April, 1930	May, 1930	Change May, 1930 from Apr., 1930	Change May, 1930 from May, 1929	Average Jan.-May, 1930 Change from 1929
UNITED STATES (Dollars)			%	%	%
Mdse. Exports	334.0	322.0	— 4	— 15	— 18
Mdse. Imports	308.0	285.0	— 7	— 29	— 23
Excess of Exports	26.0	37.0	+ 42	—	+ 19
Gold Exports	.1	.1	— 23	— 82	+ 48
Gold Imports	65.5	23.6	— 64	— 2	+ 45
Excess of Imports	65.4	23.5	— 64	— 1	+ 44
UNITED KINGDOM (Pounds Sterling)					
Exports	46.9	51.0	+ 9	— 24	— 15
Imports	83.9	91.0	+ 8	— 12	— 11
Excess of Imports	37.0	40.0	+ 8	+ 11	— 4

first five months of 1930 than for the corresponding period of 1929. The merchandise imports of Great Britain increased in May from April, but were 12 per cent less than in May of last year, and for the first five months of 1930 were 11 per cent behind the corresponding period of last year. The excess of imports into Great Britain increased in May from April and was 11 per cent greater than in May, 1929, but the excess of imports for the first five months of this year was 4 per cent behind the excess of imports for the corresponding period of last year.

Wholesale prices in the United States on July 6 were 2 points lower than on June 8, and 12.6 points lower than on July 7, 1929. Wholesale prices in Great Britain on July 6 were 1.9 points lower than on June 8, and 12.5 points lower than on July 7 of last year. In Italy, wholesale prices on July 6 were 1.6 points lower than on June 8, and 11 points lower than on July 7, 1929 (Table XVII).

TABLE XVII

INTERNATIONAL WHOLESALE PRICE INDICES

1926 = 100

Country	Index June 8, 1930	Index July 6, 1930	Change in points from June 8, 1930	Change in points from July 7, 1929
United States (Fisher's)	87.6	85.6	— 2.0	—12.6
Great Britain (Crump's)	79.8	77.9	— 1.9	—12.5
Italy (Milan Chamber of Commerce)	64.0	62.4	— 1.6	—11.0

SPECIAL ARTICLES

Construction Activity in Ohio During the Second Quarter of 1930

By Viva Boothe

The record of construction activity in Ohio and in the chief cities of Ohio during the second quarter of 1930, based on the value of construction contracts awarded, classified according to types of constrution activity, and showing the percentage change from the second quarter of 1929 for the State and the chief cities of the State is shown in Table XVIII. The total value of construction contracts awarded in the State during the second quarter of 1930 declined 22.3 per cent from the second quarter of 1929, which in turn was 18.2 per cent behind the second quarter of 1928. The second quarter decline from the corresponding period in 1929 in the value of total construction contracts awarded was experienced in all the cities shown in the table except Akron and Columbus, the declines ranging from 19 per cent in Canton and Cincinnati to 56.7 per cent in Dayton and 65.8 per cent in Cleveland. The increase in Akron from the second quarter of 1929 amounted to 6.2 per cent, and in Columbus, to 41.5 per cent.

The second quarter decline from the corresponding quarter of 1929 was experienced in all classes of construction in the State except in the "other non-residential building" class, and in the public works and utilities class. The decline in the value of contracts awarded from the second quarter of 1929 amounted to 29 per cent in residential building, 80 per cent in industrial building, 41 per cent in commercial building, and 3.4 per cent in educational building; the increase from the second quarter of 1929 amounted to 10.9 per cent in the public works and utilities group, and to 67.1 per cent in the "other non-residential" group.

Inspection of the data showing the percentage change from the second quarter of last year in the various classes of construction in the eight chief cities of the State reveals some interesting variations. Public works and utilities contracts, for example, increased in all the cities except Columbus, Toledo, and Youngstown, the increase ranging from 42.8 per cent in Akron to 423.2 per cent in Dayton; the decrease amounting to 73.9 per cent in Youngstown, 75.7 per cent in Toledo, and 81.3 per cent in Columbus. Residential building contracts declined from the second quarter of last year in all the cities except Dayton; educational building, in all the cities except Akron, Cleveland, and Toledo; commercial building, in all the cities except Canton and Youngstown; other non-residential building, in all the cities except Akron, Dayton, and Youngstown; and industrial building in all the cities.

Commercial building in Canton increased 14.3 per cent from the second quarter of 1929, but was only 20 per cent of total construction during the second quarter. The decline in commercial construction in Cleveland from the second quarter of last year amounted to 36.8 per cent, and commercial construction during the second quarter constituted almost 29 per cent of total construction. In Dayton where commercial construction declined 91.8 per cent from the second quarter of 1929, commercial contracts constituted only 4.3 per cent of total contracts awarded. In Columbus, commercial building during the second quarter amounted to only 15.4 per cent in total construction, after the decline of 57.9 per cent from the corresponding period of last year. Second quarter commercial construction in Cincinnati declined 9.5 per cent from the same period of last year, and amounted to only 13.4 per cent of total construction.

Residential building which accounted for 29 per cent of total construction in the State during the second quarter, accounted for more than 50 per cent of the total second-quarter construction in Columbus, and for more than 40 per cent in Akron, Canton, and Cincinnati. In Cincinnati, residential building declined 17.4 per cent from the second quarter of 1929, but residential building constituted 48.3 per cent of total building during the second quarter. Residential building in Cleveland declined 58.1 per cent from the second quarter of 1929 and constituted only 17.5 per cent of total building during the second quarter. In Columbus, residential building declined 50 per cent from the second quarter of 1929 but still constituted 52 per cent of the total building in Columbus during the second quarter. Industrial building declined during the second quarter as compared with the second quarter of 1929 in all the cities of the State, the decline ranging from 11.9 per cent in Cleveland to 85 per cent in Toledo. Industrial building in Cleveland represented 9.8 per cent of total building during the second quarter, and only 6 per cent of total building in Toledo. In Cincinnati, industrial building declined 70.8 per cent during the second quarter and constituted only 6.3 per cent of total building.

Table XIX presenting the percentage distribution of the several types of construction contracts for Ohio and each

TABLE XVIII

VALUE OF CONSTRUCTION CONTRACTS AWARDED IN OHIO AND OHIO CITIES, SECOND QUARTER OF 1930 CLASSIFIED BY TYPES OF CONSTRUCTION

(In Thousands of Dollars)

Source: F. W. Dodge Corporation

City	Commercial Buildings		Educational Buildings		Industrial Buildings		Other Non-Residential Buildings		Residential Buildings		Public Works and Utilities		Total Construction	
	April-June, 1930	Change from April-June, 1929	April-June, 1930	Change from April-June, 1929	April-June, 1930	Change from April-June, 1929	April-June, 1930	Change from April-June, 1929	April-June, 1930	Change from April-June, 1929	April-June, 1930	Change from April-June, 1929	April-June, 1930	Change from April-June, 1929
		%		%		%		%		%		%		%
Akron	$ 314.5	— 12.7	$ 921.6	+ 84.0	$ 395.0	— 67.9	$ 1,333.5	+467.9	$ 3,372.8	— 13.0	$ 969.8	+ 42.8	$ 7,307.2	+ 6.2
Canton	271.5	+ 14.3	—	—100.0	82.0	— 80.3	2.0	— 99.5	560.6	— 36.5	447.5	+225.5	1,363.6	— 35.0
Cincinnati	1,257.4	— 9.5	250.0	— 42.2	594.0	— 70.8	533.4	— 54.3	4,521.5	— 17.4	2,207.6	+104.7	9,363.9	— 19.1
Cleveland	3,470.9	— 36.8	560.6	+154.8	1,178.0	— 11.9	989.8	— 3.7	2,098.0	— 58.1	3,717.8	+ 97.9	12,015.1	— 13.7
Columbus	331.5	— 57.9	5.0	— 98.5	154.0	— 65.0	255.0	— 34.4	1,119.2	— 60.2	286.9	— 81.3	2,151.6	— 65.8
Dayton	139.0	— 91.8	14.0	— 49.6	235.0	— 21.7	1,736.0	*	480.2	+ 21.0	1,368.2	+423.2	3,972.4	+ 41.5
Toledo	240.0	— 35.5	1,282.4	+ 65.9	160.0	— 85.0	127.5	— 73.9	733.0	— 75.3	118.0	— 75.7	2,660.9	— 56.7
Youngstown	265.0	+ 2.1	—	—100.0	35.0	— 76.7	1,090.0	*	376.5	— 68.0	406.5	— 73.9	2,173.0	— 39.1
STATE OF OHIO	$8,152.9	— 41.0	$8,048.3	— 3.4	$4,204.5	— 80.0	$10,780.5	+ 67.1	$26,291.8	— 29.0	$33,231.0	+ 10.9	$90,709.0	— 22.3

* Over 1000 per cent gain.

of the eight chief cities of Ohio shows the relative significance of the various types of construction in the State and in each of the chief cities. It will be seen that commercial construction was of greatest relative importance during the second quarter of 1930 in Cleveland. Industrial construction was of greatest relative importance also in Cleveland although less than 10 per cent of the total construction could be classified as industrial. Educational construction was of relatively greater significance in Toledo where it constituted 48.3 per cent of the total construction during the second quarter. Public works and utilities was of greatest relative importance in Dayton, Cleveland, and Canton in all of which more than 30 per cent of the total construction was classified as public works and utilities. Residential building was of greatest relative importance in Columbus where more than 50 per cent of the total construction during the second quarter was in residential building. In Cincinnati, Canton, and Akron residential building during the second quarter constituted more than 40 per cent of total construction.

TABLE XIX

PERCENTAGE DISTRIBUTION OF TYPES OF CONSTRUCTION, OHIO AND OHIO CITIES SECOND QUARTER OF 1930

Source: F. W. Dodge Corporation

Type	Akron	Canton	Cincinnati	Cleveland	Columbus	Dayton	Toledo	Youngstown	State of Ohio
	%	%	%	%	%	%	%	%	%
Commercial	4.3	19.9	13.4	28.9	15.4	3.5	9.0	12.2	9.0
Educational	12.6	—	2.7	4.7	.2	.4	48.3	—	8.9
Industrial	5.4	6.0	6.3	9.8	7.2	5.9	6.0	1.6	4.6
Public Works & Utilities	13.3	32.8	23.6	30.9	13.3	34.4	4.4	18.7	36.6
Residential	46.2	41.2	48.3	17.5	52.0	12.1	27.5	17.3	29.0
All Other Classes	18.2	.1	5.7	8.2	11.9	43.7	4.8	50.2	11.9
Total Construction	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table XX shows the percentage change in construction contracts awarded in the second quarter from the first quarter, and the percentage change for the first half of 1930 from the first half of 1929, for total construction in the eight chief cities of the State, and for different types of construction in the State as a whole. It will be seen that the value of construction contracts awarded in the second quarter of 1930 showed a substantial increase over the first quarter in all the cities of the State except Cincinnati, Columbus, and Toledo. In spite of the gains in the second quarter of 1930, however, in three of the important cities, the first half of the year closed with 5 of the 8 chief cities showing a decline in contracts awarded as compared with the first half of 1929. Akron showed an increase of 6.1 per cent in the volume of construction during the first half of 1930 as compared with the first half of 1929, Cincinnati an increase of 1.5 per cent, and Dayton an increase of 43.9 per cent.

In spite of the increase of 8.5 per cent in the value of total construction contracts awarded during the second quarter as compared with the first quarter, there was a decline from the first quarter of 45.8 per cent in commercial construction, 7.4 per cent in educational construction, and 73.6 per cent in industrial construction. Public works and utilities construction increased 77.8 per cent from the first quarter, residential construction, 57.8 per cent, non-residential construction 25 per cent. For the first six months of 1930, as compared with the corresponding period of 1929, there was an increase of 15.8 per cent in public works and utilities construction and of slightly more than 100 per cent in non-residential construction.

TABLE XX

VALUE OF TOTAL CONSTRUCTION CONTRACTS AWARDED IN OHIO CITIES, AND OF VARIOUS TYPES OF CONSTRUCTION IN THE STATE OF OHIO

(In Thousands of Dollars)

Source: F. W. Dodge Corporation

Cities and Types	First Half of 1930	Change from First Half of 1929	Second Quarter 1930	Change from First Quarter 1930
ALL CONSTRUCTION:		%		%
Akron	$ 11,391.6	+ 6.1	$ 7,307.2	+ 78.9
Canton	2,324.0	— 36.2	1,363.6	+ 42.0
Cincinnati	24,370.9	+ 1.5	9,363.9	— 37.6
Cleveland	21,758.0	— 26.6	12,015.1	+ 23.3
Columbus	4,861.6	— 50.1	2,151.6	— 20.6
Dayton	6,634.9	+ 43.9	3,972.4	+ 49.2
Toledo	6,951.3	— 57.8	2,660.9	— 38.0
Youngstown	3,560.3	— 32.0	2,173.0	+ 56.6
STATE OF OHIO:				
Commercial	23,195.3	— 8.5	8,152.9	— 45.8
Educational	16,737.3	— 2.1	8,048.3	— 7.4
Industrial	20,112.0	— 39.4	4,204.5	— 73.6
Public Work and Utilities	51,922.9	+ 15.8	33,231.0	+ 77.8
Residential	42,948.5	— 33.4	26,291.8	+ 57.8
Other Non-Residental	19,382.2	+100.6	10,780.5	+ 25.3
Total	174,298.2	— 10.4	90,709.0	+ 8.5

However, for the first half of 1930 industrial construction was 39.4 per cent behind the first half of last year, residential construction, 33.4 per cent behind, educational construction, 2.1 per cent behind, and commercial construction 8.5 per cent behind.

For the State as a whole, the second quarter of 1930 closed 8.5 per cent ahead of the first quarter, but the first half of 1930 closed 10.4 per cent behind the first half of 1929.

Proceedings of the Ohio Conference of Statisticians—1930

The papers presented at the April meeting of The Ohio Conference of Statisticians in Columbus have been edited and published by The Bureau of Business Research of The Ohio State University in a recent bulletin.

These papers present a substantial contribution to the analysis and understanding of present happenings in the field of business and industry as well as to the literature of economic cycles and to the field of statistical technique. The nature and scope of the papers presented is seen from the table of contents below:

CONTENTS

The Economic Explanation of a Business Forecasting Index, by B. B. Smith, The Cleveland Trust Company

Stock Market Trends, by D. C. Elliott, Midland National Bank, Cleveland

The Use of the Time Factor as a Variable in Correlation Computations, by Eugene Rasor, Bureau of Business Research, The Ohio State University

Chain Store Distribution of Tires and Tubes, by Earl G. Wise, Olympic Stores, Inc., Chicago

Large-Scale Production as a Factor in the Distribution of Tires and Tubes, by R. E. Davis, Economic Statistician, Goodyear Tire and Rubber Company

The price of this Bulletin is 50 cents; copies may be secured from The Ohio State University Press.

BOOK REVIEWS

The Construction of Index Numbers, by Warren M. Persons, Houghton-Mifflin Company, 1928.

This volume on index numbers is a collection of lectures delivered during the academic year 1927-1928, be-

fore the graduate class in Statistical Theory and Analysis at Harvard University. The book is divided into six sections, of which the first five are devoted respectively to the problem of measuring average change of prices between two periods; the problem of measuring the average change of prices between three or more periods; comparison of fixed weight indexes with variable weight indexes for three or more periods; special difficulties (other than the problem of averaging given homogeneous data) of obtaining satisfactory price indexes for two or more periods or places; and the divergence of chain indexes from corresponding fixed base indexes. A short summary concludes the discussion to which an adequate index is appended.

The purpose of the author and his treatment of the subject are largely conventional. He proposes to measure "the average change of prices or quantities of two or more commodities during two or more periods." Equally lacking in novelty is Professor Persons' treatment of the problems of averaging and weighting index numbers. In simple language and by means of even simpler illustrations certain averages (arithmetic and harmonic) are shown as failing to meet the base reversal test while others (geometric and median) are found not to be deficient in this regard. Similar experiments are conducted with regard to various averages in their relation to the circular and factor reversal tests. The mode and median are discarded "since we wish to obtain an average applicable to few commodities."

The author does not regard exact compliance with either the base reversal or the factor reversal tests as of practical importance and thereby finds himself in disagreement with Professor Irving Fisher who has emphasized both tests. Professor Persons, however, inserts a proviso in respect of the factor reversal test, i.e., that weight correlation bias must be avoided. Weight correlation bias arises out of the condition that "one element in the weights, prices, always contributes to positive or negative correlation of weights and price relatives; the other element, quantities, may or may not contribute to the correlation." This bias results when the weights are correlated with the price relatives.

Professor Persons holds the circular test to be of considerable importance since it "is the logical extension of base reversal test" to three or more periods of time. Again the author is in disagreement with Professor Fisher who does not regard the satisfaction of this test as significant.

In common with most students of the problem, Professor Persons is committed to fixed base and fixed weight index numbers. He affirms the view that chain index numbers are unreliable because of their tendency to diverge cumulatively from fixed base and fixed weight indexes. Furthermore, it is pointed out that only fixed weight indexes meet the base reversal test in general. The geometric or aggregative forms are preferred as methods of averaging when three or more periods of time are involved. A slight preference is expressed for the aggregate form.

The discussion is closed with the often expressed admonition to limit comparisons of price changes to "those commodities bought and sold in economically significant and comparable amounts in periods compared." Practically all of the material presented can be readily understood by the novice as well as by the graduate. For this reason the student will find the book a handy work of reference.

RALPH L. DEWEY

PRELIMINARY REPORT ON OHIO EMPLOYMENT FOR JULY

A preliminary index of employment in Ohio based on reports from 547 firms on the fifteenth of July shows a decline of 3 per cent in total industrial employment in the State in July as compared with June. The decline in total industrial empolyment in July from June is greater than the five-year average June-to-July decline of 1 per cent. Employment in 389 manufacturing establishments of the State was 4 per cent less in July than in June, which was a decline considerably in excess of the five-year average June-to-July decline of 1 per cent. Employment in 35 non-manufacturing industries declined 3 per cent in July from June, which was substantially greater than the five-year average June-to-July decline of 1 per cent. Construction employment in July as reported by 123 concerns was 13 per cent greater than in June, which was substantially greater than the five-year average June-to-July increase of 5 per cent. As compared with July, 1929, construction employment showed a decline of 11 per cent; manufacturing employment, 30 per cent; non-manufacturing employment, 18 per cent; and total industrial employment, 18 per cent.

BOOKS RECEIVED AFTER JUNE 13, 1930, FOR REVIEW IN BULLETIN OF BUSINESS RESEARCH

Problems of Long-Term Leases—by Marvin L. Niehuss, and Ernest M. Fisher, University of Michigan

Ten Thousand Small Loans, Facts about Borrowers in 109 Cities in 17 States—by Louis N. Robinson and Maude E. Stearns, Russell Sage Foundation

Selected Articles on Trends in Retail Distribution—Including a Brief on Chain Stores—by Daniel Bloomfield, The H. W. Wilson Company.

PUBLICATIONS OF THE BURE AU OF BUSINESS RESEARCH

Publications will be sent on the terms indicated below, subject to refund upon exhaustion of the supply.

Wholesale Grocery Studies

R- 1 Salesforce Compensation and Expense of Ohio Wholesale Grocers, Year 1924 (free in Ohio) $0.50
X- 3 Operating Results of Ohio Wholesale Grocers, Year 1923 (free in Ohio) ..... .50
X- 4 Operating Results of Ohio Wholesale Grocers, Year 1924 (free in Ohio) (out of print) ..... .50
X- 8 Operating Results of Ohio Wholesale Grocers, Year 1925 (free in Ohio) ..... .50
X- 9 Delivery Costs in the Wholesale Grocery Trade (free in Ohio) ..... .50
X-12 Operating Results of Ohio Wholesale Grocers, Year 1926 (free in Ohio) ..... .50
X-21 Operating Results of Ohio Wholesale Grocers, Year 1927 (free in Ohio) ..... .50
X-25 Operating Results of Ohio Wholesale Grocers, Year 1928 (free in Ohio) ..... .50

Department Store Studies

X- 1 Survey of Ohio Retail Dry Goods Advertising, Year 1924 ..... free
X- 6 Sales, Outstandings, and Advertising of Ohio Retails Dry Goods Dealers, Year 1925 (free in Ohio) ..... .50
X-13 Merchandise Returns in Department Stores
Section I—Reasons for Returns (price to resident of Ohio, $1.00) Regular price 1.50
Section II—Extent of Returns (price to residents of Ohio, $1.00) Regular price 1.50
Sections I and II (price to residents of Ohio, $2.00) Regular price 3.00
X-18 Administration of Personnel Functions in Ohio Department Stores ..... .50
X-27 The Cost of Handling Merchandise Returns (Complimentary with purchase of Merchandise Returns in Department Stores) ..... .25

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X-10 Influence of Ten-Payment-Plan on Prestige of Stores (complimentary with purchase of Ten-Payment-Plan) ..... .50
X-22 The Application of Piece Control to the Merchandising of Men's Clothing (free in Ohio) ..... .50

Furniture Store Studies

R- 2 A Uniform System of Accounts for Retail Furniture Dealers (price to residents of Ohio, $1.00) Regular price 2.50
R- 4 Salesforce Compensation and Expense in Retail Furniture Stores of the Ohio Valley, Year 1924 (free in Ohio) ..... .50
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